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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,245	01/08/2004	Peter J. Fellingham	86745WRZ	6717

7590 12/21/2005

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EXAMINER

CHOI, HAN S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/753,245

Applicant(s)

FELLINGHAM ET AL.

Examiner

Han S. Choi

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-8, 10-13 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 9 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/20/05, 1/08/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Item [20] on page 5, line 31, item [49] on page 7, line 19, item [51] on page 8, line 21, and item [53] on page 8, line 22 mentioned in the specification are missing from the drawings. Items [20], [49], [51], and [53] should be properly cited from the specification and displayed on the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1, 4, 6, 7, 8, 10, 11, 12, 13, 15, 16, and 18 are rejected under 35

U.S.C. 102(b) as being anticipated by Meyers et al (US Pat. 6,463,674).

Meyers et al. discloses a drying system comprising:

- a plenum [115] of in [Col. 8, Line 52]
- a gas source [116] of Fig. 1 in fluid communication with the plenum [15] in [Col. 4, Lines 5-7].
- a gas flow guide [114] of Fig. 1 in [Col. 4, Lines 7-9] operable to direct gas flow provided by the gas source [116] in [Col. 4, Lines 22-27].
- a support [130] having a surface in [Col. 4, Lines 16-18], at least a portion of the surface [40] being heated in Fig. 2, wherein the gas flow guide [114] of Fig. 2 is positioned to direct gas flow at least partially toward the heated surface [40] of the support [130] in [Col. 5, Lines 31-43].
- a support [130] having a surface [40] wherein the gas flow guide [114] is positioned to create an angle relative to a plane tangential to the surface of the support [130] in [Col. 5, Lines 18-26] as shown in Fig. 2.
- a support [130] having a surface [40] and a width dimension in shown in Fig. 2 and a restrictor plate [112] positioned between the gas flow guide [114] and the plenum [115] as shown in Fig. 2, the restrictor plate [112] having at least one perforation [154] sized to distribute gas flow over the surface of the support [130] in the width dimension in [Col. 7, Lines 27-29] and [Col. 8, Lines 10-11] where the restrictor plate is the air impingement plate covering the width of the paper.

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- a restrictor plate [112] positioned between the gas flow guide [112] and the plenum [115] shown in Fig. 2, the restrictor plate [112] having at least one perforation [154] sized to limit gas flow from the gas flow generated by the gas source [116] to the gas flow guide [114] in [Col. 7, Lines 27-29] as shown in Fig. 2.
- Wherein at least one perforation [154] of the restrictor plate [112] forms a pattern of perforations [154] through the restrictor plate [112] in [Col. 7, Lines 29-31].
- the gas source [116] is positioned within the plenum [115] as shown in Fig. 2.
- the gas flow generator includes a fan [116] in [Col. 4, Lines 6-8] as shown in Fig. 2.
- The gas source [116] is positioned remotely relative to the plenum [115] and is in fluid communication with the plenum [115] in [Col. 4, Lines 6-8].
- a cover [107] positioned at least partially about the plenum [115], the cover [107] including a gas inlet [118] and a gas outlet [104] in [Col. 4, Lines 12-15] as shown in Fig. 1.
- a portion of the surface [130] defining a media travel path in [Col. 5, Line 38-40]. Heating the portions of the surface [40] defining the media travel path in [Col. 5 Lines 31-43]. Directing a gas flow at least partial toward the surface and at least partially along a direction of media travel in as shown in Fig. 3 by the arrows depicting gas flow.
- A method wherein directing the gas flow at least partially toward the surface [30] includes directing the gas flow to a location of the surface downstream from a

location of the surface where heating begins, downstream being relative to the direction of media travel as demonstrated in Fig. 3 where arrows represent gas flow show the direction of gas flow entering the dryer [100] the same direction as the direction of the media [132]. Gas flow arrows from the upper plenum [117] show gas flow being directed away from the heated area towards the exit.

- gas flow is at an ambient temperature according to Fig. 3 where arrows representing gas flow external the dryer [100] are at a temperature of the make-up air which is at a temperature lower than the heated air in [Col. 5, Lines 65-67] and [Col. 6, Lines 1-3].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Myers et al (US Pat. 6,463,674).

Myers et al. discloses the claimed invention except for having an angle approximately 45°. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have an angle approximately 45° to further control air drying intensity as taught in [Col. 6, Lines 35-36] and Myers et al. further specifies that the gas flow guide [114] may be tilted at an

angle other than 180° with respect to the plane of the surface or path of the recording medium [130] for the purpose of *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claim Objections

6. Claims 4, 6, and 14 are objected to because of the following informalities: Claims 4 and 6's usage of "a support" is unclear if they are the same "support" claimed in claim 1. Because of claims 4 and 6 dependency to claim 1, "a support" should be changed to "said support." Claim 14's usage of "the plurality of fins" is not claimed in claim 1 and would render the claim unclear, and should be changed to "a plurality of fins." Appropriate correction is required.

Allowable Subject Matter

7. Claims 2, 3, 9, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Reasons for allowance of the aforementioned claims are based upon the absence of prior art regarding the following further limitations from claims 2, 9, and 14.

The following claim limitations are absent in prior art. Claim 2 specifies a gas

flow guide including a fin. Claim 9 specifies a nozzle plate positioned between the restrictor plate and the gas flow guide, having at least one perforation sized to direct gas flow to the gas flow guide. Claim 14 specifies a plurality of fins direct gas toward the surface from a location spaced apart from the origin of the heated surface.

Claim 3 is allowable because of its dependency to claim 2.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art references (US Pat. 5,323,546; US Pat. 5,399,039; US Pat. 6,059,406) cited in PTO 892 form show elements that are deemed to be relevant to the present invention. These references should be reviewed.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Han S. Choi whose telephone number is (571) 272-8350. The examiner can normally be reached on Monday - Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HSC
12/19/05



HAI PHAM
PRIMARY EXAMINER